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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/044,205A

DATE: 05/02/2002
TIME: 16:31:06

Input Set : **A:\pto.vsk.txt**
Output Set: **N:\CRF3\05022002\J044205A.raw**

```
 3 <110> APPLICANT: KAPELLER-LIBERMANN, Rosana
 4         BANDARU, Rajasekhar
 6 <120> TITLE OF INVENTION: 69087, 15821, and 15418, Methods and Compositions of Human
Proteins and
 7         Uses Thereof
 9 <130> FILE REFERENCE: 10147-52U1
11 <140> CURRENT APPLICATION NUMBER: 10/044,205A
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C--> `12 <141> CURRENT FILING DATE: 2002-04-19`
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14 <150> PRIOR APPLICATION NUMBER: US 60/242,428
15 <151> PRIOR FILING DATE: 2000-10-23
17 <150> PRIOR APPLICATION NUMBER: US 60/241,884
18 <151> PRIOR FILING DATE: 2000-10-20
20 <150> PRIOR APPLICATION NUMBER: US 60/241,877
21 <151> PRIOR FILING DATE: 2000-10-20
23 <160> NUMBER OF SEQ ID NOS: 44
25 <170> SOFTWARE: PatentIn version 3.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 2198
29 <212> TYPE: DNA
30 <213> ORGANISM: Homo sapiens
32 <400> SEQUENCE: 1
33 gaccctaaga tgaagggacc tcactatagg gctcgagcgg ccgcccgggc aggtgctttc    60
35 gccttggcag gtgggagcat gacctatcgt gtgcagttcc tggcgggcta tacatagcca   120
37 gtcaaagctt cttacaaaag aaacctcttt cacaccctcc acgggtccca cccacaggcc   180
39 acaggactca ctgtaaatcc cttggacgtt gtctcacccg ggaagggaaa gcagccagca   240
41 gccctccagc cctcttgtgc tttccctggg agtgcgcccc gtgctcagcc atggtggaca   300
43 tggggggccct ggacaacctg atcgccaaca ccgcctacct gcaggcccgg aagccctcgg   360
45 actgcgacag caaagagctg cagcggcggc ggcgtagcct ggccctgccc gggctgcagg   420
47 gctgcgcgga gctccgccag aagctgtccc tgaacttcca cagcctgtgt gagcagcagc   480
49 ccatcggtcg ccgcctcttc cgtgacttcc tagccacagt gcccacgttc cgcaaggcgg   540
51 caaccttcct agaggacgtg cagaactggg agctggccga ggagggaccc accaaagaca   600
53 gcgcgctgca ggggctggtg gccacttgtg cgagtgcccc tgccccgggg aacccgcaac   660
55 ccttcctcag ccaggccgtg gccaccaagt gccaagcagc caccactgag gaagagcgag   720
57 tggctgcagt gacgctgcgc aaggctgagg ccatggcttt cttgcaagag cagcccttta   780
59 aggatttcgt gaccagcgcc ttctacgaca gtttctgca gtggaaactc ttcgagatgc   840
61 aaccagtgtc agacaagtac ttcactgagt tcagagtgct ggggaaaggt ggttttgggg   900
63 aggtatgtgc cgtccaggtg aaaaacactg ggaagatgta tgcctgtaag aaactggaca   960
65 agaagcggct gaagaagaaa ggtggcgaga agatggctct cttggaaaag gaaatcttgg  1020
67 agaaggtcag cagcccttttc attgtctctc tggcctatgc ctttgagagc aagacccatc  1080
69 tctgccttgt catgagcctg atgaatgggg gagacctcaa gttccacatc tacaacgtgg  1140
71 gcacgcgtgg cctggacatg agccgggtga tcttttactc ggcccagata gcctgtggga  1200
73 tgctgcacct ccatgaactc ggcatcgtct atcgggacat gaagcctgag aatgtgcttc  1260
75 tggatgacct cggcaactgc aggttatctg acctgggggct ggccgtggag atgaaggtg   1320
77 gcaagcccat cacccagagg gctggaacca atggttacat ggctcctgag atcctaatgg  1380
```

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 79  aaaaggtaag ttattcctat cctgtggact ggtttgccat gggatgcagc atttatgaaa   1440
 81  tggttgctgg acgaacacca ttcaaagatt acaaggaaaa ggtcagtaaa gaggatctga   1500
 83  agcaaagaac tctgcaagac gaggtcaaat tccagcatga taacttcaca gaggaagcaa   1560
 85  aagatatttg caggctcttc ttggctaaga aaccagagca acgcttagga agcagagaaa   1620
 87  agtctgatga tcccaggaaa catcatttct ttaaaacgat caactttcct cgcctggaag   1680
 89  ctggcctaat tgaaccccca tttgtgccag acccttcagt ggtttatgcc aaagacatcg   1740
 91  ctgaaattga tgatttctct gaggttcggg gggtggaatt tgatgacaaa gataagcagt   1800
 93  tcttcaaaaa ctttgcgaca ggtgctgttc ctatagcatg gcaggaagaa attatagaaa   1860
 95  cgggactgtt tgaggaactg aatgacccca acagacctac gggttgtgag gagggtaatt   1920
 97  catccaagtc tggcgtgtgt ttgttattgt aaattgctct ctttaccaga caggcagcag   1980
 99  gagtctcggc tgacataatc ctcgaatgtt ccacacgtgg aaatctgtgg aatgagggct   2040
101  aatcagttag gagggacatc acaaccacaa aacaattcaa aagacaggca agctcactac   2100
103  tagaacacat tttattttct ttttctttct tcataaagat gagtaaagtc tcagtttca    2160
105  ctgagggcag ggaaaaggaa cactcaggtt tattttga                           2198
108  <210> SEQ ID NO: 2
109  <211> LENGTH: 553
110  <212> TYPE: PRT
111  <213> ORGANISM: Homo sapiens
113  <400> SEQUENCE: 2
115  Met Val Asp Met Gly Ala Leu Asp Asn Leu Ile Ala Asn Thr Ala Tyr
116  1               5                   10                  15
119  Leu Gln Ala Arg Lys Pro Ser Asp Cys Asp Ser Lys Glu Leu Gln Arg
120              20                  25                  30
123  Arg Arg Arg Ser Leu Ala Leu Pro Gly Leu Gln Gly Cys Ala Glu Leu
124          35                  40                  45
127  Arg Gln Lys Leu Ser Leu Asn Phe His Ser Leu Cys Glu Gln Gln Pro
128      50                  55                  60
131  Ile Gly Arg Arg Leu Phe Arg Asp Phe Leu Ala Thr Val Pro Thr Phe
132  65                  70                  75                  80
135  Arg Lys Ala Ala Thr Phe Leu Glu Asp Val Gln Asn Trp Glu Leu Ala
136              85                  90                  95
139  Glu Glu Gly Pro Thr Lys Asp Ser Ala Leu Gln Gly Leu Val Ala Thr
140              100                 105                 110
143  Cys Ala Ser Ala Pro Ala Pro Gly Asn Pro Gln Pro Phe Leu Ser Gln
144          115                 120                 125
147  Ala Val Ala Thr Lys Cys Gln Ala Ala Thr Thr Glu Glu Glu Arg Val
148      130                 135                 140
151  Ala Ala Val Thr Leu Arg Lys Ala Glu Ala Met Ala Phe Leu Gln Glu
152  145                 150                 155                 160
155  Gln Pro Phe Lys Asp Phe Val Thr Ser Ala Phe Tyr Asp Lys Phe Leu
156                  165                 170                 175
159  Gln Trp Lys Leu Phe Glu Met Gln Pro Val Ser Asp Lys Tyr Phe Thr
160              180                 185                 190
163  Glu Phe Arg Val Leu Gly Lys Gly Gly Phe Gly Glu Val Cys Ala Val
164          195                 200                 205
167  Gln Val Lys Asn Thr Gly Lys Met Tyr Ala Cys Lys Lys Leu Asp Lys
168      210                 215                 220
171  Lys Arg Leu Lys Lys Lys Gly Gly Glu Lys Met Ala Leu Leu Glu Lys
172  225                 230                 235                 240
```

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```
175 Glu Ile Leu Glu Lys Val Ser Ser Pro Phe Ile Val Ser Leu Ala Tyr
176                 245             250                 255
179 Ala Phe Glu Ser Lys Thr His Leu Cys Leu Val Met Ser Leu Met Asn
180                 260             265                 270
183 Gly Gly Asp Leu Lys Phe His Ile Tyr Asn Val Gly Thr Arg Gly Leu
184             275             280             285
187 Asp Met Ser Arg Val Ile Phe Tyr Ser Ala Gln Ile Ala Cys Gly Met
188         290             295             300
191 Leu His Leu His Glu Leu Gly Ile Val Tyr Arg Asp Met Lys Pro Glu
192 305                 310             315                 320
195 Asn Val Leu Leu Asp Asp Leu Gly Asn Cys Arg Leu Ser Asp Leu Gly
196                 325             330                 335
199 Leu Ala Val Glu Met Lys Gly Gly Lys Pro Ile Thr Gln Arg Ala Gly
200             340             345             350
203 Thr Asn Gly Tyr Met Ala Pro Glu Ile Leu Met Glu Lys Val Ser Tyr
204         355             360             365
207 Ser Tyr Pro Val Asp Trp Phe Ala Met Gly Cys Ser Ile Tyr Glu Met
208     370             375             380
211 Val Ala Gly Arg Thr Pro Phe Lys Asp Tyr Lys Glu Lys Val Ser Lys
212 385             390             395                 400
215 Glu Asp Leu Lys Gln Arg Thr Leu Gln Asp Glu Val Lys Phe Gln His
216                 405             410                 415
219 Asp Asn Phe Thr Glu Glu Ala Lys Asp Ile Cys Arg Leu Phe Leu Ala
220             420             425             430
223 Lys Lys Pro Glu Gln Arg Leu Gly Ser Arg Glu Lys Ser Asp Asp Pro
224         435             440             445
227 Arg Lys His His Phe Phe Lys Thr Ile Asn Phe Pro Arg Leu Glu Ala
228     450             455             460
231 Gly Leu Ile Glu Pro Pro Phe Val Pro Asp Pro Ser Val Val Tyr Ala
232 465             470             475             480
235 Lys Asp Ile Ala Glu Ile Asp Asp Phe Ser Glu Val Arg Gly Val Glu
236             485             490             495
239 Phe Asp Asp Lys Asp Lys Gln Phe Phe Lys Asn Phe Ala Thr Gly Ala
240         500             505             510
243 Val Pro Ile Ala Trp Gln Glu Glu Ile Ile Glu Thr Gly Leu Phe Glu
244     515             520             525
247 Glu Leu Asn Asp Pro Asn Arg Pro Thr Gly Cys Glu Glu Gly Asn Ser
248     530             535             540
251 Ser Lys Ser Gly Val Cys Leu Leu Leu
252 545             550
255 <210> SEQ ID NO: 3
256 <211> LENGTH: 1659
257 <212> TYPE: DNA
258 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 3
261 atggtggaca tggggggccct ggacaacctg atcgccaaca ccgcctacct gcaggcccgg      60
263 aagccctcgg actgcgacag caaagagctg cagcggcggc ggcgtagcct ggccctgccc     120
265 gggctgcagg gctgcgcgga gctccgccag aagctgtccc tgaacttcca cagcctgtgt     180
267 gagcagcagc ccatcggtcg ccgcctcttc cgtgacttcc tagccacagt gcccacgttc     240
```

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Input Set : **A:\pto.vsk.txt**
Output Set: **N:\CRF3\05022002\J044205A.raw**

```
269 cgcaaggcgg caaccttcct agaggacgtg cagaactggg agctggccga ggagggaccc  300
271 accaaagaca gcgcgctgca ggggctggtg gccacttgtg cgagtgcccc tgccccgggg  360
273 aacccgcaac ccttcctcag ccaggccgtg gccaccaagt gccaagcagc caccactgag  420
275 gaagagcgag tggctgcagt gacgctgcgc aaggctgagg ccatggcttt cttgcaagag  480
277 cagcccttta aggatttcgt gaccagcgcc ttctacgaca agtttctgca gtggaaactc  540
279 ttcgagatgc aaccagtgtc agacaagtac ttcactgagt tcagagtgct ggggaaaggt  600
281 ggttttgggg aggtatgtgc cgtccaggtg aaaaacactg ggaagatgta tgcctgtaag  660
283 aaactggaca agaagcggct gaagaagaaa ggtggcgaga agatggctct cttggaaaag  720
285 gaaatcttgg agaaggtcag cagccctttc attgtctctc tggcctatgc ctttgagagc  780
287 aagacccatc tctgccttgt catgagcctg atgaatgggg gagacctcaa gttccacatc  840
289 tacaacgtgg gcacgcgtgg cctggacatg agccgggtga tcttttactc ggcccagata  900
291 gcctgtggga tgctgcacct ccatgaactc ggcatcgtct atcgggacat gaagcctgag  960
293 aatgtgcttc tggatgacct cggcaactgc aggttatctg acctggggct ggccgtggag 1020
295 atgaagggtg gcaagcccat cacccagagg gctggaacca atggttacat ggctcctgag 1080
297 atcctaatgg aaaaggtaag ttattcctat cctgtggact ggtttgccat gggatgcagc 1140
299 atttatgaaa tggttgctgg acgaacacca ttcaaagatt acaaggaaaa ggtcagtaaa 1200
301 gaggatctga agcaaagaac tctgcaagac gaggtcaaat tccagcatga taacttcaca 1260
303 gaggaagcaa aagatatttg caggctcttc ttggctaaga aaccagagca acgcttagga 1320
305 agcagagaaa agtctgatga tcccaggaaa catcatttct ttaaaacgat caactttcct 1380
307 cgcctggaag ctggcctaat tgaaccccca tttgtgccag acccttcagt ggtttatgcc 1440
309 aaagacatcg ctgaaattga tgatttctct gaggttcggg gggtggaatt tgatgacaaa 1500
311 gataagcagt tcttcaaaaa ctttgcgaca ggtgctgttc ctatagcatg gcaggaagaa 1560
313 attatagaaa cgggactgtt tgaggaactg aatgaccccca acagacctac gggttgtgag 1620
315 gagggtaatt catccaagtc tggcgtgtgt ttgttattg                         1659
318 <210> SEQ ID NO: 4
319 <211> LENGTH: 0
320 <212> TYPE: DNA
321 <213> ORGANISM: Homo sapiens
323 <400> SEQUENCE: 4
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W--> **324 000**
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326 <210> SEQ ID NO: 5
327 <211> LENGTH: 0
328 <212> TYPE: DNA
329 <213> ORGANISM: Homo sapiens
331 <400> SEQUENCE: 5
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W--> **332 000**
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334 <210> SEQ ID NO: 6
335 <211> LENGTH: 0
336 <212> TYPE: DNA
337 <213> ORGANISM: Homo sapiens
339 <400> SEQUENCE: 6
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W--> **340 000**
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342 <210> SEQ ID NO: 7
343 <211> LENGTH: 0
344 <212> TYPE: DNA
345 <213> ORGANISM: Homo sapiens
347 <400> SEQUENCE: 7
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W--> **348 000**
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350 <210> SEQ ID NO: 8
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Input Set : A:\pto.vsk.txt
Output Set: N:\CRF3\05022002\J044205A.raw

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      351 <211> LENGTH: 0
      352 <212> TYPE: DNA
      353 <213> ORGANISM: Homo sapiens
      355 <400> SEQUENCE: 8
W--> 356 000
      358 <210> SEQ ID NO: 9
      359 <211> LENGTH: 0
      360 <212> TYPE: DNA
      361 <213> ORGANISM: Homo sapiens
      363 <400> SEQUENCE: 9
W--> 364 000
      366 <210> SEQ ID NO: 10
      367 <211> LENGTH: 0
      368 <212> TYPE: DNA
      369 <213> ORGANISM: Homo sapiens
      371 <400> SEQUENCE: 10
W--> 372 000
      374 <210> SEQ ID NO: 11
      375 <211> LENGTH: 553
      376 <212> TYPE: PRT
      377 <213> ORGANISM: Homo sapiens
      379 <400> SEQUENCE: 11
      381 Met Val Asp Met Gly Ala Leu Asp Asn Leu Ile Ala Asn Thr Ala Tyr
      382 1               5                   10                  15
      385 Leu Gln Ala Arg Lys Pro Ser Asp Cys Asp Ser Lys Glu Leu Gln Arg
      386             20                  25                  30
      389 Arg Arg Arg Ser Leu Ala Leu Pro Gly Leu Gln Gly Cys Ala Glu Leu
      390             35                  40                  45
      393 Arg Gln Lys Leu Ser Leu Asn Phe His Ser Leu Cys Glu Gln Gln Pro
      394     50                  55                  60
      397 Ile Gly Arg Arg Leu Phe Arg Asp Phe Leu Ala Thr Val Pro Thr Phe
      398 65                  70                  75                  80
      401 Arg Lys Ala Ala Thr Phe Leu Glu Asp Val Gln Asn Trp Glu Leu Ala
      402             85                  90                  95
      405 Glu Glu Gly Pro Thr Lys Asp Ser Ala Leu Gln Gly Leu Val Ala Thr
      406             100                 105                 110
      409 Cys Ala Ser Ala Pro Ala Pro Gly Asn Pro Gln Pro Phe Leu Ser Gln
      410             115                 120                 125
      413 Ala Val Ala Thr Lys Cys Gln Ala Ala Thr Thr Glu Glu Glu Arg Val
      414     130                 135                 140
      417 Ala Ala Val Thr Leu Ala Lys Ala Glu Ala Met Ala Phe Leu Gln Glu
      418 145                 150                 155                 160
      421 Gln Pro Phe Lys Asp Phe Val Thr Ser Ala Phe Tyr Asp Lys Phe Leu
      422             165                 170                 175
      425 Gln Trp Lys Leu Phe Glu Met Gln Pro Val Ser Asp Lys Tyr Phe Thr
      426             180                 185                 190
      429 Glu Phe Arg Val Leu Gly Lys Gly Gly Phe Gly Glu Val Cys Ala Val
      430             195                 200                 205
      433 Gln Val Lys Asn Thr Gly Lys Met Tyr Ala Cys Lys Lys Leu Asp Lys
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/02/2002
PATENT APPLICATION: US/10/044,205A   TIME: 16:31:07

Input Set : **A:\pto.vsk.txt**
Output Set: **N:\CRF3\05022002\J044205A.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:33; Xaa Pos. 31,38

VERIFICATION SUMMARY   DATE: 05/02/2002
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Input Set : **A:\pto.vsk.txt**
Output Set: **N:\CRF3\05022002\J044205A.raw**

```
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:324 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (4) SEQUENCE:
L:332 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (5) SEQUENCE:
L:340 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (6) SEQUENCE:
L:348 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (7) SEQUENCE:
L:356 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (8) SEQUENCE:
L:364 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:
L:372 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:
L:968 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (15) SEQUENCE:
L:976 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (16) SEQUENCE:
L:984 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (17) SEQUENCE:
L:992 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (18) SEQUENCE:
L:1000 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (19) SEQUENCE:
L:1008 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (20) SEQUENCE:
L:1341 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (24) SEQUENCE:
L:1349 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (25) SEQUENCE:
L:1357 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (26) SEQUENCE:
L:1365 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (27) SEQUENCE:
L:1373 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (28) SEQUENCE:
L:1381 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (29) SEQUENCE:
L:1389 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (30) SEQUENCE:
L:1812 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:16
L:1816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:32
L:2039 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (37) SEQUENCE:
L:2047 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (38) SEQUENCE:
L:2055 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (39) SEQUENCE:
L:2063 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (40) SEQUENCE:
```